

MARQUETTE

BUSINESS REVIEW

A JOURNAL OF FUNDAMENTAL BUSINESS PRINCIPLES

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AN ANALYSIS OF THE BUSINESS RECESSION

Cono Casella *

To paraphrase Mark Twain, just about everyone is talking about the business recession, and also wants something done about it.¹ This greater interest in a phenomenon that until recent years was a matter of concern mainly to economists may be explained by various reasons. Perhaps the most obvious is the growing impatience of the public with serious unemployment of labor or plant capacity, as is evidenced by increasing Congressional concern. Then, paradoxically, the very success in avoiding a serious depression like the one of the 1930's has, in the post-war period, added to the drive to bring about an even better performance of the economy. Finally, the international arena, with its sputtering of cold wars, has heightened national awareness of the importance of preventing an economic breakdown. Failure in this area may seriously undermine the social and political system elaborated over the years in western nations, and among the uncommitted nations could start defections towards the communist camp. All in all, the ability of the American economy to operate at a high level of efficiency has become a matter of considerable importance, whether viewed from a business, national political, or international outlook. In some respects it is not exaggerating matters to say that the ability of the nation to order its economy in such a way as to avoid the wastes flowing from booms and busts may be second in concern only to national defense.

Doing away with business fluctuations may be a difficult task, however. Not only have they been part of the economy's operations from at least as early as 1819, but they flow from the very way in which economic activity is organized. Basically, these ups and downs are brought about by the bunching up of errors on the part of consumers and producers, very much as a boat might list if many of its passengers decided to move over to the same side. At the present time there are fifty million spending units, and about four and one-half million companies in the United States. These units are free to order their economic activities pretty much as they please in the search to satisfy their needs or to make a profit. Thus, consumers can spend their money as they wish in whatever way they consider most desirable under the circumstances. On

1. An example of this widespread interest can be seen in the effort on the part of a national union to run a straw vote ballot on the question of "How I would cure unemployment," and offering seven choices, ranging from doing nothing to instituting a planned economy. See: Oil, Chemical and Atomic Workers International Union, Union News, vol. 15, no. 2 March 23, 1959, p. 1.

*Dr. Casella is Assistant Professor of Economics, Marquette University.

the other hand, the producers attempt to arrange their output to meet the expected demand of the consumers, who purchase upward of 90 per cent of all national products. If the consumers change their spending patterns by not purchasing what businessmen thought they would, or simply by holding on to their money, then expected sales will not be made. Understandably, individual actions are forever being modified, but if errors are offset, the estimate of consumer behavior by business will not be too far off. However, should there be a bunching up of mistakes, then the example of the boat can be duplicated by the economy, which is thrown off balance and perhaps may require substantial adjustments to correct the errors. These shifts in some consumer buying habits and business outlooks may, in turn, affect others and start cumulative waves of optimism or pessimism that can infect large sections of the economy.

Because all business cycles bear some resemblance to each other, the recession of 1957-1958 can tell a lot about how periods of economic contractions develop. Like members of a family, however, they also differ in some respects. Taking first things first, the last recession can be traced in roughly the following chronological order: investments fell because demand was not keeping up with added capacity, consumers aggravated matters by reducing sharply their purchase of automobiles and other durable goods, international trade then started to decline, and government efforts to cut back expenses along with Federal Reserve Bank policy to hold the lid on prices all helped to change the business situation. When this happened, inventories were cut back and many businesses and consumers headed for the storm cellars. Let us examine each of these items in its turn.

Gross domestic investments rose sharply from the early part of 1954 to mid-1957 and formed one of the strongest investment booms known. From a rate of \$46.6 billion for the first quarter of 1954, gross investments reached a high of \$68.8 for the last quarter of 1956, after which they fell slowly to \$67 for the second quarter of 1957, and hit a low rate of \$49.2 for the second quarter of 1958. This rapid expansion of plant investments can be traced to several major factors. The federal government, in the wake of bottlenecks that appeared during the Korean conflict and because of growing international tension, encouraged expansion of certain industries by allowing rapid write-offs, granting a larger depreciation allowance than normally permitted. This practice was halted by 1956. Moreover, the population was surging forward at a strong rate, creating an ever-growing market for all types of products. Rising national income, from \$301.8 billion in 1954 to \$364 billion for 1957, showed that purchasing power was also advancing. In addition, consumers were willing to go into debt, as is evidenced by the growth of consumer credits from \$32.2 billion in 1954 to \$44.7 in 1957. Finally, prices kept pushing upward, with the consumer price index (1947-1949 = 100) going from 114.8 to 120.2, and the wholesale price index increasing from 110.3 to 117.6 over this period. Many companies decided to add to their capacity in excess of expected demand just to avoid having to pay more later on for labor and materials, in view of anticipated price rises.

Industrial production did not rise at a rate to justify further extensive investments, however. After reaching 147 in December, 1956, the industrial production index actually fell by 2 points through the third

quarter of 1957, and then fell by about 13 per cent from August, 1957, to a low of 126 in April, 1958. When industrial output did not advance, businessmen began to re-examine plans for further expansion. Not only were investments pared, but inventories were also held back. Inventories were not only cut to reduce stock as sales dropped, but also to consume them in order to bring the ratio of total inventories to sales to the customary levels. Manufacturing inventories, after increasing only slightly during 1956 and the first nine months of 1957 to reach \$54.2 billion for August and September, declined thereafter to \$49.2 by December, 1958. Manufacturing sales weakened even earlier, from a high of \$29 billion for July 1957 to a low of \$24.9 for March and April 1958. Durable goods sales suffered a greater drop, from 16.6 billion in July 1957 to \$11.5 billion in April 1958.

At this point something must be said about the consumers, those puzzling individuals who refused to act as the manufacturers expected. As per capita income increases, the individual consumer has greater purchasing power to meet his needs. Once the basic requirements for food, shelter and clothing are satisfied, a growing proportion of total income is left over for semi-luxuries and for luxuries. Although the rising standard of living has been able to absorb this growing purchasing power, much of this added ability to buy has been expended in durable goods. It so happens, however, once an automobile, refrigerator or other such product is bought, that the consumer either can replace it within a relatively short time or can postpone buying a new item, depending upon his willingness to buy. Thus, the expanding market for durable goods is much less stable than for the other types of goods and services. Probably the best case in point is the automobile market. For the years 1935 - 1939, an average of more than 7 per cent of all consumer expenditures was used for automobiles, parts, gasoline and oil. This percentage rose to above 8 per cent for 1946-1951, and increased to more than 10 per cent for 1952 - 1957. In 1958 it stood at 9 per cent. Domestic auto sales hit a peak of 7.7 million in 1955, but declined to a ten-year low of 4.2 million in 1958. The automobile makers, of course, planned on ever growing sales to keep up with the growing population and rising per capita income.² The consumers, however, went their own way instead, preferring to buy European cars at lower unit prices and switching some of their expenditures to vacations, swimming pools, boats, and other new outlets, to mention only a few of the booming activities. Furthermore, the coming of recession accentuated this shift from durable goods to non-durable goods and services.

2. The severity of the recession was contributed to by the excessive optimism of the car makers. After enjoying exceptional sales in 1955, they prepared for ever higher output. D. J. Davis, vice-president for manufacturing of the Ford Motor Company, testified before the Joint Committee on the Economic Report in October 1955 that expected sales for 1957 would reach nine million automobiles, with sales increasing even further in later years. As it was, domestic auto sales in 1957 were well under six million.

From the third quarter of 1957 to the second quarter of 1958, expenditures on services actually advanced by almost 4 per cent, non-durable items went up about 1 per cent, but durable goods were down nearly 12 per cent.

There were other drags on the economy as well. Foreign trade, an important stimulant to industrial output since the end of World War II, bounded up even more in the wake of the Suez crisis of 1956. From an annual rate of \$14.3 billion for 1955 (excluding military aid), exports increased to \$17.3 billion for 1956, and reached a high of \$19.5 billion in 1957. The reopening of the Suez Canal in mid-1957 brought about a reversal that is still continuing. In 1958, exports fell to \$16.3 and brought about a substantial outflow of gold. Moreover, exports for February of 1959 amounted to \$1.17 billion, the lowest level in three years for that month. Since prices have risen some 8 per cent during this period, the actual physical volume is probably even lower than for February, 1955, when \$1.14 billion exports were reported.

The strong inflationary pressure that became evident during the latter part of 1956 and the first half of 1957 caused considerable concern. The Federal Reserve Banks, therefore, after lowering the discount rate to 1-1/2 per cent in early 1954, gradually exercised a restraining hand as the economy began its recovery. This policy change was evident from the middle of 1956 onward, probably reaching its peak in August, 1957, when the discount rate was raised to 3-1/2 per cent, the highest level since March, 1933. The higher cost of money and its scarcity hit hard at the construction industry; privately financed housing starts dropped below the million mark in 1957 for the first time since 1949, to reach an annual rate of 915,000 by February, 1958. Finally, the federal government, after having deficits from the fiscal year 1951, was able to balance the budget for fiscal 1956 and reaped a surplus of almost \$4.5 billion. Another surplus was gained in 1957, this time of \$2.1 billion. This state of affairs was promoted by cutbacks in military expenditures. Although the policies of the Federal Reserve Banks and efforts to balance the budget cannot be blamed for sparking the recession, the dampening effect of these actions, when combined with the slowing up in the other sectors of the economy as noted above, undoubtedly contributed to the severity of the general business contraction that began during the third quarter of 1957.

Once a business contraction gets under way, its extent and severity are affected by the potential instability created by the downturn of major sectors of the economy. Like a snowball rolling downhill, a recession under way can gain considerable momentum and can spread far and wide to become an avalanche before it is halted. The experience of the 1930's indicates how serious this can be. In fact, the nagging fear that a depression as serious as the one that began in 1929 may recur can explain much of the touchiness felt by government, labor, and business leaders with regard to any recession. In some respects, the contraction that began during the third quarter of 1957 had some of the earmarks of a possibly serious depression. As has been indicated, the industrial production index plummeted by about 13 per cent within a period of nine months, the sharpest cutback of any since the end of World War II. Unemploy-

ment, which had averaged less than 2.5 million for the first half of 1957, almost doubled within a year's time. However, instead of triggering a general decline of business activity, the last recession had only limited impact upon the economy. Gross national product, the measure of total final value of goods and services, dropped by less than 5 per cent, from \$445.6 billion in the third quarter of 1957 to \$425.8 billion for the first quarter of 1958, in current dollars. Personal consumption expenditures fell by an even smaller proportion, from \$288.3 to \$268.2 billion for this period, less than 1 per cent. Moreover, these expenditures were back to their former highs by the second quarter of 1958 and have been bounding upward ever since. Finally, prices have not behaved at all as they are expected to do during a contraction. The consumer price index rose steadily during 1957, from 118.2 to 121.6, and only declined by about 2 points during 1958. A similar situation applies for the wholesale price index, which dipped slightly during the early part of 1957, but stood at 119.5 in January, 1959, about 1 point higher than the record level reached in August, 1957.

What was it that prevented the downturn from becoming contagious and spreading throughout the economy? In addition, what conditions made industrial activity rebound upward so rapidly, more like a V than the customary U in which the economy scrapes along the bottom for a while before recovery gets underway? Here again, it is apparent that a combination of forces was at work. A simple listing, not necessarily in their order of importance, would have to include popular confidence that the recession would not get out of hand, steady expansion in government expenditures, an upturn in construction, and a substantial increase of transfer payments. Of more restricted importance was the upward movement of farm income, along with retroactive wage increases given by the federal government to civil service employees and the armed forces, and the fact that the recession did not hit all industries or regions of the country with the same force.

The widely held opinion that the government had the means with which to prevent a serious depression was perhaps the most important dike of all. This attitude was so prevalent that consumer expenditures actually increased for non-durable goods and services even during the downswing, thereby offering a powerful boost to business. There were strong supports to buttress this feeling, however. An indication of this is the ability of personal income, which slipped from an annual rate of \$352.1 for August, 1957, to \$346.4 for February, 1958 and then jumped up again to reach a record \$355.6 for August, 1958. It has been increasing ever since. Because people had the money to spend they were able to pay off their old debts, thereby setting the foundation for a future expansion of consumer credit, and were also able to meet their needs with relatively little reduction in their standard of living. All of this was helped by the so-called "built-in stabilizers." These include unemployment insurance and supplementary benefits available to many workers in the hardest hit industries, higher Social Security payments and even greater coverage. Total transfer payments, the name given to these outlays, rose to \$26.7 billion by August, 1958, an advance of more than \$5 billion during the course of a year. Moreover, corporations contributed their bit by maintaining dividend payments at close to their record highs. A number of

companies cut their payments in the face of shrinking profits, but others kept their dividends at the same level even to the extent of occasionally having to dip into their reserves. Standard and Poor's estimated a reduction of profits of about 16 per cent for 1958, but dividends fell by only 6 per cent. In addition, the retroactive wage increase that went into effect at mid-year provided government workers with extra dollars to spend. It is hard to estimate how much effect all the talk of tax cuts and other public expenditures made in the Congress had upon the economy during 1958. A much more substantial lift, on the other hand, was provided by spending on the part of state and local governments. From an annual rate of \$36.1 for the third quarter of 1957, this type of spending climbed to \$37.8 billion at the end of the year. It increased to \$38.6 billion in the first quarter of 1958 and approached the \$40 billion mark by the end of the year.

The federal government gave aid to construction activity as well. Encouraged by more liberal VA and FHA mortgage rates and terms, private housing starts turned around from a low annual rate of 915,000 in February to a three-year high of 1,330,000 for November, 1958. Furthermore, the accelerated national road building program gave another boost to this important industry.

In addition, farm income rose substantially to provide another income buffer. Higher prices, fairly steady costs, and good crop yields pushed up farm earnings by more than \$1.5 billion for 1958, the highest level since 1953. This gain provided farmers with a per capita income of more than \$1,000, a record high. The old peak had been \$983, which was reached in 1951. The much better record shown by farm activity indicates another reason that the recession did not worsen. Reduction of output and general business did not affect the whole nation in the same way. Instead, the recession was felt most strongly in the northeastern section of the country, where most of the heavy industries are located. On the other hand, the southeast, the Pacific Coast, and mainly rural regions performed much better. This differential in the rate of economic contraction provided an important deterrent to a runaway depression.

All of these factors had some influence in slowing the downward spiral and then reversing its direction to make possible a sharp recovery. Granted this, have we learned anything from this recession to arm us with the knowledge to help avoid a repetition of the same thing? Once more, it is necessary to stress that the economy is forever undergoing modification as consumers and producers adjust their conduct to take advantage of new and better ways of meeting their requirements. Business fluctuations are, to some extent, the results of the structural changes that are necessary in order to improve methods of operations. Shifts in preferences and expectations accentuate these swings in activity. If it were possible to effect a prompt and accurate adjustment of these changes in the behavior of consumers and producers, this source of difficulty would be reduced. But knowledge of the future is limited, causing most of us to rely on guesses or hunches on how to plan for what lies ahead. Thus, the inevitable mistakes made in this process add up to discrepancies between actual requirements and the ability to satisfy them. Rather than hope for an end to all business fluctuations, our

aim should be to keep them within reasonable limits. Of course, what constitutes the tolerable range of cyclical movements cannot be decided by any single group, but must be evolved with the aid of public policy in which all elements of society can play a role.

Granting that the recession of 1957-1958 extended beyond acceptable limits, what has been learned from this event? The first lesson is the evident one that business downturns of serious proportions can still take place in spite of efforts to improve fiscal and monetary policy to prevent depressions from starting. This suggests two types of faults: lack of adequate timely information such as to provide the business community and public authorities with the data needed to prevent recessions from starting, and insufficient means to encourage consumers and producers to behave in ways consistent with full employment goals.

Knowledge of how the economy functions, and information regarding the various activities going on within the economic structure have advanced enormously in the last thirty years. In fact, it is probably correct to say that one of the main reasons for the much better performance of the American economy in the post-war period can be credited to the wealth of statistical data accumulated and perfectly since the 1930's. Obviously, better and more up-to-date information provides one of the best aids to learn what is going on within the economy, and also gives members of the business community the knowledge essential for making correct estimates of what to do and how to go about it in the best ways consistent with their means. Knowledge of this important resource, however, and use of it are less than they might be. In addition, many of the more important indicators of business activity, such as gross national product and its parts, investment data, and accurate knowledge of consumer behavior are far from accurate. What is more serious, these data take so long to compile as to lose much of their usefulness when released. For example, the recession that began in July, 1957, was under way for almost six months before sufficient evidence was in to indicate that the economy was suffering from a broad downturn in activity. Had this information been available at an earlier date, corrective measures could have been taken sooner, and both businessmen and government policymakers would have had added time to do something about it. Equally important, statistical data must be arranged in ways more comprehensible to the typical businessman.³ Finally, the value of these data should be stressed to encourage their use more extensively and intelligently by all those who make decisions that may affect the operations of the economy.

Having accurate and timely information is but one part of the story, however. All the knowledge in the world is useless unless those who employ it know how to select the data relevant to their needs and then apply that knowledge effectively to improve their actions. Here the si-

3. A company, a few years ago, hired a consultant to prepare a report concerning certain markets for its products. This report cost the firm \$10,000. The same information was available in a Government Printing Office publication that cost exactly ten cents.

tuation is even more unhappy, because of the complex nature of the economy. Policymakers on the government and Federal Reserve Bank levels have quite a task cut out for them. To function efficiently, they must examine closely the operations of the economy and spot any incipient problems as soon as they become evident. Once a potential source of difficulty is recognized, it is necessary to decide on the best policy to be used, and then to proceed to enforce it. This means more than altering the discount rate or passing a money bill. The policymakers may be convinced that certain steps are required to cope with, let us say, a decline in employment in a certain region or city. But unless the consumers and businessmen react to the specific policy decision in the desired way, the effort will have failed. How to break down the barriers that separate the authorities responsible for such decisions and the public remains a problem no less serious than the more technical one of gathering accurate information.

Two applications of this principle come to mind. Monetary policy, as determined by the Federal Reserve Banks, has come in for a lot of criticism from the Congress and various segments of the public. Repeated examples of lack of confidence have been shown towards the various steps taken by the Federal Reserve. Leaving aside the merits of the complaints, it is apparent that the public must be educated to the aims and purposes of the Federal Reserve. Moreover, some balance must be found between the over-all role of credit requirements and the politically explosive issue of full employment. If the Federal Reserve is to operate effectively, it must be able to concentrate on the tasks at hand rather than spend much of its time trying to placate various economic interests, or convince members of Congress of the propriety of its intentions.

Fiscal policy has proven even less productive of notable results. Congress spent most of its time during the early months of 1958 bickering over what to do, much of which seemed politically oriented and was intended more to win votes than actually to deal with the recession. The final result was another example of the cumbersomeness of the whole budget-making process and the difficulty of adjusting government spending to make a prompt and positive contribution to anti-cyclical objectives. Granting that the Congress is a political organization primarily concerned with fashioning public policy over matters of national interest, its inability to make a more positive contribution towards efforts to contain the recession would suggest that little has been learned over the last thirty years. Taking advantage of one another's discomfiture may be sound politics, but it may not be of much help in fashioning adequate policy. But how to translate the need for more effective fiscal operations - in terms of over-all programs based on emergency tax and budgetary measures designed to restrain economic contraction in the place and manner appropriate to the particular situation - is a major responsibility of the political leaders. Moreover, because of the emotions aroused by a recession, it might be advisable to prepare such programs well in advance of actual need. Then, these programs could be revised to bring them up to date in order to keep them in a high state of readiness, always available to be applied when needed.

Aside from mainly mechanical improvements in the ability to contain and reverse downward movements of the economy, there may also be taking place long-term modifications of the economic system of a type not so easy to correct. Much has been said about the growing rigidity of business and labor organizations and their methods of operations. Although it is difficult to point to specific instances, it is likely that the increasing inflexibility of prices, greater standardization of products, and the development of increasingly bureaucratic methods of arriving at business decisions have made the actions of many firms less responsive to changing market conditions. Moreover, the more rigid and formal relationships now developing between management and labor promise to reduce even further the ability of both to adjust their problems easily and without work stoppages.⁴ The fact that America has already priced itself out of the international farm products market has proved costly enough. If management and labor proceed to do the same for manufactured products, attending to future recessions will become much more difficult. In other words, a sound and growing economy can absorb the inevitable shifts in production and consumption much more easily than one which is relatively stagnant. Therefore, it is in the national interest to encourage moderation and restraint in the claims pressed by all segments of the economy as a first step in keeping the productive system viable and sound.

In conclusion, the recession that began in August, 1957, has already been erased in terms of recovering the levels of activity reached at that time. However, there are several knotty areas that remain, unemployment being one of the more serious. The inability of the economy to push much beyond the plateau of the industrial activity attained in late 1956 and early 1957 remains another source of concern. So far, the economy has rebounded from the lows reached in April, 1958, but making up for production lost during the recession is proving more difficult. The American consumers and producers have, on the whole, behaved with considerable sophistication and did not panic during the downturn. On the other hand, the low contribution made by the Congress and the Administration suggests grounds for improvement. Finally, the increasingly sharp and hard divisions between labor and management, and in their methods of dealing with one another, leave much to be desired.

Avoiding business recessions is not a simple matter of putting a floor under physical production, prices and employment. It also calls for improving the quality of decision-making at all levels of the economy. This is nothing particularly new, but the last recession has once again shown that failure in either area can prove troublesome. It is a lesson well worth remembering. After all, a depression like that of the 1930's is not beyond the realm of possibility if the same bunching up of errors which led to that debacle is repeated.

4. For an example of this state of mind, see the statements of Kenneth R. Miller, of the National Association of Manufacturers, and of George Meany, President, AFL-CIO, in the Marquette BUSINESS REVIEW, vol. 3 (1959), no. 1, pp. 2, 6-8; and 3, 9-11.

THE GERMAN PROBLEM - 1959

Eric Waldman *

The Berlin Crisis - as the present Soviet challenge to the European status quo is generally referred to - is an unmistakable sign of the great intensity of the East-West power struggle in Europe, the reckless dynamics of soviet aggressiveness, and the soviet leaders' crafty utilization of a weak and vulnerable place in the Allied "defensive" position, both in terms of the physical environment (the geographic and tactical situations) and of the brittle unity in views and plans concerning Germany and European security problems.

The nature of the "Berlin Crisis" is usually recognized primarily as a problem of a political and military nature. The economic analyst must recognize, however, the over-all implications of the political situation in Europe upon the future development of its economy.

Probably there is a general agreement among political observers that the Berlin situation must be seen in terms of the over-all power struggle between the soviet bloc (the Soviet Union "supported" by her satellites with varying degrees of reluctance) and the NATO powers. It appears that the Soviet Union intends to use Germany as a fulcrum in the realization of her expansionist designs in Central and Western Europe. Even though an analysis of these soviet plans will be presented later, the following premise concerning these soviet intentions underlies this entire evaluation. These soviet objectives are primarily not responses to alleged Western offensive designs, because the foreign policies of the Western powers seem to be geared to hold the status quo, accepting the reality of coexistence in Europe as elsewhere. The significance of this premise lies in its recognition of the fact that it is predominantly the Soviet Union which constitutes the driving power in the international arena, and that the Western powers have limited their diplomacy to reactions, replies, and counter-measures.

Thus, it is possible for the soviet rulers to utilize at their choosing three so-called major "weaknesses" in the Western position in Europe. The first one is the Western commitment in West Berlin; the second is connected with the fact of a divided Germany and the West's adherence to the principle that it is the responsibility of the Big Powers to re-unite Germany; and finally, a certain degree of "disunity" among the NATO

*Dr. Waldman is Chairman of the Department of Political Science and Director of the Institute of German Affairs, Marquette University. This article is based on a paper delivered by him at the Midwest Conference of Political Scientists at Miami University, Oxford, Ohio, on May 1, 1959.

powers concerning policies and actions to be taken against soviet aggressiveness. The first and second of these "weaknesses" are certainly not deficiencies in terms of principles, absolute moral standards, and of international legal justice. They are weaknesses only insofar as they make diplomatic maneuvering more difficult, if not entirely impossible, and thereby create an inflexibility of policy and eliminate alternative approaches. Differences of opinion up to a certain point among allied but free and independent nations is in itself a normal and desirable situation. There are, however, two dangers involved. One is that the Soviet Union intends to utilize this in order to drive wedges of distrust among the Allies, and a second difficulty relates to the time element. Time is required to bring about unity of action and harmony of policies as the upshot of decisions freely arrived at.

Our task is made more complicated when we raise the justified question about past commitments which brought us to Berlin, an island in soviet-controlled territory, and about agreements which made us a partner of the Soviet Union in accepting obligations concerning the future of Germany. For this analysis, it is but a moot question if our statesmen in the past used prudence and had political foresight. It would also lead too far afield to review the conceptual background and the substance of our war-time policies and agreements which led to the division of Germany into four occupation zones and to the peculiar arrangements pertaining to Berlin. Even if we should like to change the past, it cannot be done, and we have to deal with the reality of the present situation. We may leave it to the propaganda experts on both sides of the acoustic curtain to remind us of the errors of the past, or of alleged and real violations of solemn agreements.

Germany Reassessed:

Our first effort must be an evaluation of the Germany of today, without necessarily returning to an examination of the reasons which motivated our governmental leaders when they consented to the ingredients which went into the making of the contemporary situation.

What are some of the major aspects of Germany in 1959 which we must take into consideration when reassessing the German questions against the background of the newest soviet challenge which apparently attempts to utilize a few assumed political undercurrents among the German people, such as re-unification and a peace treaty with the victorious powers of World War II?

In the first place, we must distinguish which of the two Germanies we are talking about. Unlike a gathering of Western diplomats, we do not have to be most careful of what terminology is used in describing the *de facto* situation of a divided Germany. There are two German political entities. If can certainly be noted that the so-called German Democratic Republic is not as free and independent in terms of domestic and foreign affairs as the Federal Republic of Germany, and that the Communist Ulbricht regime depends on the presence of soviet troops for its very existence. For a factual evaluation, however, regardless of our objections to almost everything the Pankow "government" does, "East Ger-

many" is just as much of a "state" as is, for example, Hungary, Rumania, or Albania.

The Federal Republic of Germany emerged in post-World War II Europe when policies underwent considerable changes from earlier concepts, which were partly the product of the atmosphere of a nation engaged in a total war effort. The difficulties created in the post-war world by the Soviet Union must, however, also be taken into account for the change in Western attitudes toward the defeated Germans and toward encouraging a political re-emergence by unifying the Western zones of occupation. In May of 1949, the Federal Republic of Germany was proclaimed. Not until joining the Western alliance in October of 1954, however, did "West Germany" obtain a somewhat qualified "sovereign" status.

West Germany has given a remarkable account of what a free society - with some initial and significant moral and material assistance from abroad - can accomplish within a short period of time in terms of political and economic reconstruction and stability. It would be too time-consuming to present here a detailed analysis of the situation of the Federal Republic, especially since there will probably be little disagreement among informed people that during the last ten years both the political and economic life of Germany have developed to such a degree that the country has become a substantial pillar of European stability. There are even encouraging signs in the social and political climate which constitute distinct breaks with some highly undesirable - seen from a democratic point of view - traditional German values and practices. The noted social mobility within post-War German society and the recent strong reaction to some anti-Semitic incidents are just two illustrations of this greatly improved social milieu.

After the initial paralyzing shock which followed 1945, political apathy gradually gave way to an articulate political life which, in contrast to the Weimar period, did not purposely utilize the frustrations of a defeated people. Attacks from left and right wing extremists made no significant impact. In the Federal Republic, with but a few exceptions, even such a "natural" and potential target for emotional appeals as the group of expellees and refugees proved non-receptive, as soon as these unfortunate people were at least partially absorbed in their new surroundings. It is quite remarkable to observe, especially among the German youth, that conformity is considered less of a virtue than in other Western countries. It is the opinion of many observers that within the Federal Republic more and more citizens are becoming aware of and are enjoying the present political climate, which has brought into existence public discussions of important issues, responsible and responsive governments operating on several levels, and "loyal" oppositions.

Likewise in the economic sphere has there been a considerable change in outlook. Emphasis has been placed on the productivity increase, on raising employee wage levels, on the build-up of the domestic market - all significant aspects of a rising living standard. This improvement in the material conditions has provided an inductive environment for increased intellectual, spiritual, and cultural activities. All this was preceded by a painful period of re-adjustment and extremely hard labor, and

it appears that there are few who would be ready to give up their improved living standard - even if this meant the postponement of the reunification of West and Central Germany.

A few representative statistics will illustrate the dramatic speed of the over-all economic recovery and the present economic situation. The national income, that is the net product at factor cost, in 1958 was 169.1 billion DM (1 Deutsche Mark or DM = \$4.19) compared to 160.3 billion DM in 1957. The increase was 5.5 per cent. The per capita figure for 1958 was 3,309 DM, amounting to a 4.2 increase over the preceding year. The change per capita income was smaller than the increase in total because of a population increase. Since 1950 the per capita increase was 108 per cent. The national income rose by 127 per cent during the same period.¹

In foreign trade, the Federal Republic has reached the position of the world's third largest exporter and importer, trailing only the United States and Great Britain. The total import for 1958 in volume was about 7 per cent higher than in 1957, even though that import value of \$7.5 billion represents a 1.8 per cent decline from the 1957 figure. The explanation is to be found in the decline in raw material prices. The export of the Federal Republic climbed to \$8.8 billion, a gain of 2.8 per cent over 1957. The foreign exchange surplus in 1958 was about \$1.6 billion which is almost \$400 million more than in 1957.²

The contents of foreign policies have also undergone a remarkable change from the ultra-nationalistic kind of the past. There is probably not one country within the North Atlantic Treaty Organization which has repeatedly shown a greater willingness to subordinate itself consistently to concrete expressions of European integration in the economic, political, and military fields. Both major foreign policy views in the Federal Republic, that of the Adenauer government as well as that of the Social Democratic opposition, are in complete agreement that Germany's future and security rest with the Western Powers and that Germany must contribute her just share to the over-all security situation. There is disagreement between the two major political forces on methods and degree of collaboration, but not on principles.

The creation of the so-called German Democratic Republic was the soviet response to the establishment of the Federal Republic. The Soviet Zone of Occupation became the DDR (Deutsche Demokratische Republik) in October, 1949, and in December, 1955, her "full sovereignty" was recognized by the Soviet Union. During the first ten years of her "national" existence, the soviet satellite attempted to consolidate the soviet-type political system against the overwhelming majority of the 17 million population. The June, 1953, uprisings in most of the urban centers of the DDR, which were brutally suppressed by the military forces of the Soviet Union stationed in "German" territory, as well as the three million refugees

1. Bulletin, Bonn, No. 34, February 20, 1959, p. 319.

2. German Business Weekly, New York, February 4, 1959, p. 1.

from the DDR, strengthen the conviction that the Ulbricht regime is not supported by the masses. In spite of the known dissatisfaction, however, and of the need for the communist government to rely on physical coercion and methods of organized terror in order to remain in power, the Pankow government is in control and carries out diligently the directives from its political masters in Moscow.

The economic policies of the Soviet Union in regard to East Germany have changed from the earlier phase, characterized by dismantling industrial equipment and shipping machinery to the Soviet Union, to a policy marked by exploiting German labor within the area under soviet control and taking finished products instead. Thus, while in West Germany, U.S. aid assisted in the reconstruction of the German economy, in the East the Soviet Union deliberately retarded a similar development. The great difference in the living standards in the Federal Republic and in the DDR is the result of these two diametrically opposed policies. It is only within the last two years that production of consumer goods partially for domestic use has received stronger attention in the economic planning. (Rationing of selected food items was practiced until the spring of 1958.) The Fifth Party Congress of the Socialist Unity Party (SED), in the summer of 1958, set the aim for the East German economy. It is expected to reach the level of West Germany within a number of years.

In general, the people within the DDR are experiencing in the political and economic fields the oppressive practices of a soviet-type system. At this time, almost the entire industry is owned and operated by the state. In June of 1958, only 9 per cent of the gross national production came from private industry 2 per cent from mixed enterprises (part private and part state), and 89 per cent from state owned industry. An exception is the building industry, where 45 per cent of construction work was done by "capitalist" enterprises. As far as retail trade was concerned, by the summer of 1958 only one-third of the trade was handled by private businesses. The communist trade unions recently commenced with new pressures against the last remnants of private economic enterprise.³ Moreover, the collectivization of agriculture and small business has been largely achieved. The country's total economy is geared to the new Seven Year Plan of the Soviet Union. The DDR's export in 1957 to the Soviet Union amounted to 3.1 billion Rubel (1 Rubel at the official rate of exchange = \$0.25). These figures placed the DDR in first place in foreign trade with the Soviet Union, and this continued in 1958. The second largest trading partner of the Soviet Union was China. Czechoslovakia stood in third place, followed by Poland and Rumania.⁴

In spite of the fact that, according to reliable information and evidence, the great majority of the population of the DDR is dissatisfied and strongly antagonistic to the communist rule because of its dictatorial and

3. Schnelldienst des Deutschen Industrieministeriums, Cologne, No. 20, March 10, 1959, p. 3.

4. Ibid., No. 95, December 2, 1958, p. 3.

arbitrary features, there are nonetheless many democratically oriented socialists who remain in favor of a socialist type economy, based on state ownership of key industries. These East German socialists constitute a force which is strongly in favor of a political re-unification of Germany. As far as economic integration with West Germany is concerned, however, they are opposed to it for traditional socialist reasons.

The third part of Germany, the area east of the Oder-Neisse Line, presently under Polish administration or incorporated into the Soviet Union, has no voice of its own - neither genuine nor manufactured. The DDR has officially renounced any future "German" claim for these territories and has accepted that they have become part of Poland and of the Soviet Union. The Federal Republic, on the other hand, has not given up Germany's claim and follows the policy that the future peace treaty will determine her eastern border with Poland. In the meantime, the Polish government has removed almost the entire German population, and has assumed an attitude as if the issue had been settled by a final international treaty.

The international relations of the two Germanies are also of importance for our analysis. The Federal Republic has generally received recognition by the community of nations. Even the Soviet Union has extended recognition to the Bonn government and exchanges diplomatic representation. On the other hand, the Western powers have refused up to this time to give official recognition to the Ulbricht regime on the grounds that it is a puppet of the Soviet Union. The Adenauer government has gone to great length in exerting pressures upon its allies to refuse recognition of the East German government. It is asserted that such a recognition would strengthen the communist control over this portion of Germany and would lead toward a permanent division of the country. The present government in Bonn feels so strongly about this issue that Tito's recognition of the government of the DDR resulted in the termination of diplomatic relations between the two countries by the Federal Republic. On the other hand, Bonn has no hesitation about continuing the existing trade relations with Yugoslavia. As a matter of fact, even the "non-existing" DDR is a trading partner of the Federal Republic, and there are a number of "interzonal agreements" in operation. An illustration of this realistic recognition of facts is that on March 8, 1959, the New York Times reported that West Germany has agreed to grant East Germany credits for the delivery of 75,000 tons of steel, 200,000 tons of hard coal, about \$3,000,000 worth of textiles and shoes as "advance deliveries" during 1959. A credit of \$21,000,000 is involved. East Germany is slated to repay the advances in 1960 through shipments of soft brown coal, wheat and crude oil.

The "Berlin Agreement" of September 20, 1951, regulates the "interzonal trade." This agreement replaces the former arrangements concerning trade between the Federal Republic and the DDR reached at Frankfurt. Starting in 1952, interzonal trade continuously increased after an appreciable decline from 1950 to 1951. Following are the trading figures in millions of Deutsche Mark:

<u>Year</u>	<u>DDR imports from the Federal Republic</u>	<u>DDR exports to the Federal Republic</u>
1950	383	422
1951	167	148
1952	167	133
1953	240	292
1954	394	425
1955	504	567
1956	588	642
1957	764	829

During the first half of 1958, the Federal Republic delivered goods to the DDR valued at 430.4 million DM. Imports from the DDR were in the value of 392.3 million DM during the same period.⁵ Figures concerning the interzonal trade published by *Die Welt*, Hamburg, April 11, 1959, apparently based on soviet sources, present the same strong increase in trading activities between the two German political entities. The following figures are in millions of Rubel:

<u>Year</u>	<u>DDR imports from the Federal Republic</u>	<u>DDR exports to the Federal Republic</u>
1955	542	546
1956	585	616
1957	736	819
1958	800	808

The partition of Germany into East and West also determined the alignment of the two Germanies with the opposing power groups in Europe. The DDR is a party to the Warsaw Pact and is pledged to support any of the east European satellites and the Soviet Union when attacked by the "imperialist" camp. Like the rest of the soviet satellites, her highly qualified national independence is guaranteed by the power of the Soviet Union.

The international relations and alliances of the Federal Republic are far more substantial arrangements because they not only involve mutual security pacts, but include important economic and political alliances working in the direction of a strong European integration. The Federal Republic has reached a position of trust and importance within the Western countries. For example, within the defensive military alliance of NATO, Bonn provides an increasing amount of actual military strength to the defense of the Free World. In spite of the fact that among Germans there is some disagreement concerning the degree of military in-

5. Claus Knetschke, "Der Interzonenhandel," in *SBZ Archiv* (Cologne, Vol.10, No. 3, February 10, 1959), pp. 41-44. See also Helmuth Kalus, *Wirtschaftszahlen aus der SBZ* (Bonn: Deutscher Bundes Verlag, 1958) pp. 67-69, "Der Interzonenhandel der Bundesrepublik einschliesslich West-Berlin mit dem sowjetischen Besatzungsgebiet."

volvement that the Federal Republic is to accept, for example the entire question of nucleau weapons for the new Federal military establishment, there is hardly any controversy about the need for maintaining a strong defensive alliance with the other Western powers for the sake of her own security.

Soviet Policies Toward Germany and Europe :

For an analysis of the German Problem of 1959, a discussion of soviet foreign policies concerning Germany and Europe is essential. The following brief examination of these policy aims of the Soviet Union is based on interpretations of her actions, as well as on relevant statements. Soviet policies toward Germany seem to be influenced by three mahor concepts: they are designed to prevent Germany from utilizing her armament potential and from establishing herself again as a strong military power; they are also intended to prevent Germany from participating in any kind of anti-soviet alliance - especially one which combines American and German potentials; and the ultimate aim is to remove Germany as an obstacle standing in the way of further westward soviet expansion. These three aspects underlying soviet policies might facilitate a better comprehension of specific soviet actions and proposals.

There is reason to believe that the soviet leaders have given up hope by this time that German internal developments would bring the indigenous communists into power. Obviously, the best solution for the German problem, as far as the Soviet Union is concerned, would be a Germany completely under the control of Moscow. To start out with, however, a communist dominated Germany is not feasible; therefore, as the second best solution, the neutralization of Germany is being attempted. The soviet concept of the two German states related to the reunification as an intra-German affair with a so-called Confederation as the outcome, is one of the soviet designs to neutralize Germany as a European power factor and as a strong partner of the Western alliance. Krushchev and the SED leaders have made it quite clear that, within the Confederation, the continuity of the communist regime and its political and economic system would be assured in the eastern constituent part of the "united" but neutralized Germany. This would preclude free elections for all of Germany under international control for the foreseeable future, because free elections are certain to terminate the Ulbricht government.

In the Soviet Union's proposal for a German Confederation, combining on a parity basis the dictatorial communist regime with the freely elected democratic Bonn government, at least one part of the soviet foreign policies would be realized: the effective neutralization of Germany at absolutely no cost to the Soviet Union but at a substantial loss to the NATO alliance in which the Federal Rebpublic plays a very important role. There is even hope for the soviet leaders that in the long run the communists would be able to subvert the western component of the German Confederation. The marked change in the balance of power, as a result of the neutralization of Germany, might break the will of resistance to communist pressure of many Germans who in turn might seek accommodation with the soviet East. A communist controlled Germany probably would eventually lead to a loss of Europe by the Free World.

Western Policies Toward Germany:

Western policies toward Germany are influenced by idealistic as well as realistic notions. There will be those who will strongly object to the reference of idealistic concepts as operational factors in the contemporary world. There are some, however, who do believe that many statesmen are strongly motivated by a genuine desire to create the foundation for a peaceful world, who believe in the ultimate objectives of international organizations, and in the international rule of law. And in spite of the fact that these conditions cannot be immediately realized throughout the entire world, it still is possible to bring them into existence within regional arrangements. It can be correctly pointed out that these objectives were not always the aims of the Western powers. But several developments, including the sobering effects of the threat of a nuclear holocaust, have brought about important changes in attitudes. Thus, a democratically inclined and peaceful Germany is considered as a great asset in this type of international society, even of one limited to regional dimensions.

The realistic concepts of the Western powers which, under the present circumstances are probably those with the higher priority, are concerned with effective containment policies as far as soviet aggression is concerned. Western interests in European integration and the entire security concept of NATO must be evaluated against this background of enlightened Realpolitik.

Within the last few years, Germany has become an integral part of those regional alliances. Many analysts of the international situation go so far as to assert that she has become an essential power factor in terms of her economic, technological and military strength and potential in addition to her strategic location.

As long as this evaluation of the part played by the Federal Republic is accepted in the over-all power balance, no change in her alignment can be acceptable to the Western powers. It is highly doubtful, however, that West Germany's position will remain the same under the impact of changed strategic concepts, based on inter-continental ballistic missile type of warfare. Some military experts are questioning the traditional balance of power views even at present.

The Present German Crisis:

The present crisis was created at the choosing of the soviet leaders in terms of time and place. The immediate cause is the soviet "ultimatum" requesting the de facto termination of the Western protection for West Berlin. The soviet rulers selected Berlin as their first target because they are aware of the difficulties the Western powers face in defending the status quo there. The six-month time fuse, although at times de-emphasized by Moscow, has added to the climate of urgency of the present situation. Senator Lynden Johnson, who usually does not tend toward dramatization, exclaimed: "The countdown has begun."

The soviet leaders calculated correctly when they anticipated that

the Western powers would not be willing to terminate the Four Power status of Berlin as a result of soviet demands and pressure. Ten years ago, an Allied airlift illustrated Western determination. The political offensive, by necessity and design, was soon broadened in scope. Soviet proposals for "settling" all of the outstanding problems pertaining to Germany and to the over-all European security were communicated to the Allies and announced to the world.

A brief review of the soviet proposals made between November 27, 1958, and the end of March, 1959, is essential in assessing the possibilities the Western powers have in dealing with this newest soviet offensive in Germany which, as indicated before, is primarily directed against the effective instruments of the Western containment policy.

At least five main points can be distinguished within the soviet offensive:

1. First of all, there is Krushchev's demand for the "internationalization" of West Berlin and the creation of a so-called "free city." He has proposed that the "free" status of the city should be guaranteed by the Big Four and he thought it possible to have a "minimum of troops" belonging to these powers or to neutral countries stationed within the city. The soviet prime minister also stated that he would not object to United Nations' guarantees and to UN troops, provided that the "occupation regime" of the Western powers would be ended.

2. Point two on the agenda is the soviet version of German re-unification. According to the soviet leaders, re-unification is an intra-German affair and must be achieved on the basis of a German confederation.

3. Following the establishment of an all-German government, reflecting equal representation from the DDR and from the Federal Republic, a peace treaty is to be signed between the victorious World War II Allies and the German Confederation. This peace treaty would finalize the German borders, place limitations upon German armament and military strength, and effectively neutralize the country by curtailing the conduct of her foreign relations.

4. The Soviet Union promotes certain concepts supposedly intended to relax the tensions between the soviet bloc and the Western powers through some kind of withdrawal or disengagement of troops. The soviet proposals attempt to get American troops out of the Federal Republic and from Europe altogether.

5. And finally, there is a strong soviet preoccupation with methods which can be used to reach the various objectives. It appears that, in spite of the bellicose utterances and threats, the Soviet Union does not envisage the use of force - not even for the removal of the "cancer of the occupation regime in West Berlin." The soviet leaders are proposing negotiations and peaceful methods to bring about solutions to the pending problems. It might be difficult to understand the paradox involved in this soviet approach. In the first place, the soviet rulers created the

tensions. What, then, are the reasons that they also desire a relaxation of tensions? The answer is not difficult to find if it is realized that the Soviet Union would not be satisfied with maintaining the status quo which she challenged. A relaxation of tensions is desired after a compromise, which as far as the Soviet Union is concerned must be found between the status quo and the ultimate soviet objectives. Krushchev stresses the utility of a summit meeting because, based on his own situation, he is convinced that only the heads of state have the necessary authority to deal with the high level problems of Berlin, Germany, and the European balance of power.

The Western powers have not yet arrived at their final formulation of their reactions to the latest soviet offensive. In spite of the recent concentrated efforts of the British Prime Minister, there are still numerous diversities apparent among the leading powers of NATO. Nevertheless, up to the present time the following positions have been expressed by the leaders of the Western powers:

1. As far as Berlin is concerned, the Western Allies have stated unanimously, clearly, and forcefully, their determination to keep their troops in Berlin and to uphold the provisions of the international agreements - to which the Soviet Union is also a signatory - pertaining to the Four Power status of Berlin. It is recognized that a withdrawal of the American, British, and French troops would in short order terminate the existence of the democratic institutions of West Berlin. Without the presence of these troops, it could be expected that the soviets would "intervene" because of alleged anti-soviet propaganda to "subversive" activities in West Berlin.

Aside from the humanitarian considerations, a *de facto* surrender of West Berlin would amount to a severe injury to Western prestige and thereby to the basic power position of the defense alliance. It is, therefore, in the words of the American President, "unthinkable" to leave Berlin.

2. The Western position on the question of German re-unification has been, from the very beginning, that free elections in all of Germany must precede re-unification, because only a freely elected government could rightfully claim to speak on behalf of the German people. Since the soviet and SED leaders, for obvious reasons, object to free elections, they have come up with the idea of a confederation. The Western powers, including the government of the Federal Republic, have up to now strongly rejected a confederation because the neutralization of Germany would be the price for the unworkable combination of a free and democratic society with a soviet-styled totalitarian system. Actually, an acceptance of this soviet proposal would realize the two soviet foreign policy objectives: the creation of a power vacuum in the center of Europe, and the opportunity for communist penetration into the free part of a neutralized Germany.

It was reported on March 19, 1959, by the respectable German daily newspaper, *Die Welt*, of Hamburg, that the United States and Britain have prepared a counter-proposal to the soviet endorsed confederation. This information allegedly leaked out during the Eisenhower -Mac-

millan conferences in March, 1959. If these reports are substantiated by facts, it might seem to indicate among some of our statesmen a high degree of naivete on this issue. The entire concept of combining the existing two German political entities into a kind of superstate is doomed to failure because of the complete incompatibilities existing between the two systems in operation. There is, as we have learned, a marked difference between cooperation and coexistence. While both of the two German states can live side by side, the notion of genuine cooperation which would be required in even the loosest type of confederation, is most unlikely to come about between the Ulbricht regime and the Bonn government. It is difficult to see how a difference in the percentage of representation could improve the situation. In place of the soviet proposed parity, the Western plan allegedly envisages a proportion of 60 to 40 in favor of the Federal Republic, which has a much higher population. An integration of the DDR with the Federal Republic can not be achieved as long as the soviet system with its political, social, and economic institutions has a life estate guaranteed by the Soviet Union. A confederation of the German Laender, another alleged concept of the Western counter-proposal, instead of the two German states, would also hardly change the situation.

3. The Western powers insisted that in the absence of a freely elected German government, a peace treaty is of little avail. Recently, however, a more flexible attitude has emerged and views have been expressed, as a result of soviet pressure, that possibly a peacetreaty could be negotiated among the Big Four with representatives from both German states participating as advisors and consultants. As long as no all-German government is in existence, it must be assumed that the peace treaty would either have to be signed by the Federal Republic and by the DDR or that the entire procedure is a waste of effort.

The threat by the Soviet Union of signing a peace treaty with the DDR in case the Western powers fail to come to an agreement has probably only one effect. It would tend to give to the present division of Germany a more permanent character. The highly publicized soviet intention of turning over to the authorities of the DDR the functions connected with the Western use of the supply routes to Berlin, if carried out by the soviets, may lead to complications. If the East German guards were to be regarded merely as agents of the soviets, as once intimated by John Foster Dulles, then the impact of this event would most likely be minimized. If, on the other hand, Western troops would refuse to present their credentials to the East German border guards, serious complications could arise.

4. One of the most sensitive areas of Western policy-in-the-making is the entire problem of troop withdrawal, disengagement, and neutralization on a regional scale. There are forces within each of the Western nations which either advocate or oppose the very principles involved in these plans.

The number of "disengagement" plans continuously increases. One of the first was the proposal made by George F. Kennan. Recently, the British Prime Minister has been considering the possibilities of a 'thinning

out process" of military forces in Europe. The latest and very comprehensive plans are those of the German Social Democrats and of the Free Democratic Party.

The resolute and official negation which any of these concepts has received in the past has changed to a careful reassessment. The end of this process is not in sight.

4. And finally, the Western powers have always expressed their conviction that peaceful negotiations constitute the only reasonable method for settling disputes and removing serious tensions. The differences which exist on this point among the Western leaders center on the utility and usefulness of meetings at the various diplomatic levels and on the selection of participants to such conferences. Also on these points, no final decision has been made. Macmillan and Krushchev advocate a conference on the highest level; the United States, supported by France and the Federal Republic, is more skeptical about the usefulness of a meeting of the heads of state and proposes some preparatory meetings of the foreign ministers.

Also the possibilities offered by the United Nations have not yet been fully explored. In spite of the fact that Germany is not a member nation, the current dispute is one among United Nations members and, therefore, if so desired, could probably be brought before the Security Council.

An evaluation of the possible approaches and policies which the United States and other NATO powers can pursue in the present European crisis must include an appreciation of the contemporary power relations, in spite of the declared willingness by all governments to negotiate.

The United States is suddenly thrown into a position which cannot be dealt with by relying only on her own overwhelming military superiority. A balance of military power might be a fact. Political and economic programs, such as those positive undertakings after World War II like the Marshall Plan and the Truman Doctrine, must be utilized in order to create a situation of confidence among the free peoples. In other words, constructive approaches to solve the contemporary problems must be found.

Possibly one of these many "disengagement" concepts, or a combination of them, might produce the climate in which even an uneasy co-existence can continue to exist.

Economic Implications:

The future of the European economy depends largely upon the direction which the political developments will take. If the present status quo will remain, it can be expected that the trend of further integration of Germany's economy with that of Western Europe will continue in spite of the prevailing political and military tensions that exist between the Western and the Soviet worlds.

If, however, effective steps are taken as a result of an East-West agreement in the direction of a German re-unification - which seems possible only as part of the neutralization of a far larger region than Germany represents - it is highly questionable if the present economic trends can continue without major adjustments to the changes in the political constellations in Europe. It is possible that a neutralized Central Europe might form an integrated economic region which eventually would find itself in competition with a Western European economic area with Great Britain included. It is doubtful if a development of this nature can be considered to be of benefit to England and France. Therefore, the actions of the governments of France and England in relation to the entire neutralization plan of Central Europe might be strongly influenced by this factor.

A further possibility would be the economic integration of the Western European nations with the territory in the East, including Poland, Czechoslovakia, and the area of the present DDR. A development of this kind would probably be strongly opposed by the Soviet Union, because it would considerably strengthen the non-Soviet world.

These are just a few of the possibilities which could come about as a result of the contemporary unsettled situation in Europe. It illustrates how markedly the political and economic factors interact. It is, therefore, absolutely essential that our political strategists who are endeavoring to find solutions for the "Berlin Crisis" must work in closest consultation with our economic experts.

There might be a method in diverting the competitive struggle into the economic sphere in terms of exerting efforts of improving the living standards within the respective countries and of giving assistance to the underdeveloped nations. The compelling force behind the search for "solutions" is the mutual interest of avoiding the alternative to coexistence - coextinction.

THE ADMINISTRATION OF QUALITY CONTROL IN TODAY'S INDUSTRY

Dale A. Cue*

To administer is synonymous with to manage. Skillful administrators are essential and vital to any successful business. Competent executives are most often the difference between the success or failure of a quality control program. It must be recognized that technical proficiency is something different from administrative skills. Certainly technical competence and experience in quality control are helpful in managing the quality control department, but this is not a substitute for achieving administrative action. Someone once defined administration as the guidance, leadership and control of the efforts of a group of individuals toward some common goal. Immediately this de-emphasized the tools of the statistical quality control, directs attention to the evaluation of the people as managers, and suggests that realistic objectives must be established.

In many top management circles, quality control men have been looked upon in the past as "fire fighters", and this viewpoint may well have been justified. By the very nature of the business, most of the time of the average Quality Control Manager or Chief Inspector has been consumed by day-to-day quality troubles. This condition has lead to the end result that they seldom plan, organize or follow through on a definite quality program. Looking at the situation without bias, quality control people must be willing to admit that "operating by the seat of their britches" is not enough.

The very fact that a quality control program exists in a company indicates that management felt that it would be good for the company. Primarily, they felt that a quality control program would aid in the growth of the company by establishing a good quality reputation, thus satisfying customers and ultimately increasing sales, and would contribute to increasing profits by reducing quality costs. If this is their expectation, then these must be the primary objectives of the quality control department.

The transition from post-mortem inspection to statistical quality control also requires a transition in managing and in management policy. The most important policy change involves the authority of the quality control group. Should this group have the authority to shut down a manufacturing operation or process? This area must be analyzed to determine first of all if quality control wants this authority.

*Mr. Cue is presently Quality Control Manager for the Hoover Ball and Bearing Company, Ann Arbor, Michigan; this article was prepared while he was Assistant to the Director of Quality, A. O. Smith Corporation, Milwaukee, Wisconsin.

It is agreed that manufacturing should be solely responsible for producing a quality product. If this is true, then quality control's authority to shut down an operation would take this responsibility away from manufacturing. Further, if this authority is exercised by quality control, these people must be prepared to assume the responsibilities that accompany such an action - for the production schedule, placement of personnel, budget performance, and the quality and the quality-cost this job affects. Prior to the shut-down of the job, these responsibilities belonged to the manufacturing supervisor; since quality control assumed his authority, it also inherited his problems and responsibilities. Many quality control people feel that they need this authority; yet it has often been found that, where this dictatorial authority was taken, the only time a job was shut down for corrections was when quality control stepped in and did it. Many times the operator or the manufacturing supervisor knew the job was unsatisfactory, but thought it might get through. Manufacturing people cannot be responsible for quality if their authority is diluted or taken away. Quality control's authority should be the authority of knowledge. Through this philosophy it has been possible to convince the manufacturing supervisor to accept his full responsibility for quality and still accept quality control as a service to him - not a police action over him. At A. O. Smith it was concluded that quality control does not need and should not have the authority to shut down an in-process operation.

Naturally, under this method of operating, quality control is required to keep manufacturing informed whenever material coming off an operation is rejected, recommending the corrective action necessary wherever possible, and outlining the consequences of alternative decisions. Should a rejected operation continue in production, quality control has the authority to require manufacturing to sort and repair or to scrap the discrepant material before it goes on to another department or to the shipping dock.

With this philosophy and method of operation in mind, it is possible to look at the elements necessary to achieve administrative action - the results of effective managing: What action can be taken to get the job done? To do the job right? There are many approaches to performing well as a manager - each differing, but the techniques and methods are similar.

The job of managing, basically, is to size up the total problem, divide it into separate areas or segments, assign responsibilities for action to various parties, and establish a system to evaluate the progress of the program. It is interesting to consider some of the things that A. O. Smith has done following these general principles of managing.

The transition from post-mortem to statistical techniques has influenced the calibre of the work force and of the supervision needed. Immediately, it was recognized that every inspection supervisor or quality control technician should be well trained in the fundamentals of statistical quality control. This is essential if proper application, evaluation, and supervision are to be obtained. The objective was not to make statisticians or mathematicians out of these people, but rather to teach them the philosophy and concept of preventive quality control. For some of these people, this was a program of selling as well as of teaching.

To meet this objective, the Quality Control Staff developed a five-day course in the fundamentals of statistical quality control. This was patterned after university courses such as those offered at Iowa University, Illinois University, or Michigan University, except that the course material, demonstrations, and problems were tailored to A. O. Smith problems and applications.

The initial concern lay in presenting this training only to quality control people. It was felt necessary to broaden the views and capabilities of this organization before a promotional or selling pitch was made to other functions. The program could not succeed without individual divisional organizations who would back up the claims made by quality control. After a nucleus of quality control people in each division had been trained, manufacturing and engineering personnel were invited to attend.

At A. O. Smith one course was presented each month from September to June. During a full year the participants came from such areas as :

- Manufacturing Supervision - Foreman through Superintendent
- Engineering -
 - Project Engineers
 - Tool Engineers
 - Product Engineers
 - Plant Engineers
 - Design Engineers
 - Industrial Engineers
- Production Control
- Welding Research
- Economic Evaluation
- Quality Control - all areas

As this training activity progressed, it became apparent that more individual effort and divisional applications were being made. The course was greatly responsible for taking statistical quality control out of the area of mathematical hokus-pokus and the theoretical plane and for placing it on a practical level as a method of approaching and analyzing problems.

In addition to the five-day basic course, the quality control philosophy has been demonstrated to most of the supervisors in the company's two-week Management Seminar. In this over-all presentation on the job of supervising or managing, four hours are spent on quality concepts, responsibility for quality, and the cost of quality. In these sessions, references to statistical quality control were in the vein of "What value are they to the operating supervisor?" - an application review, so to speak. The purpose of these sessions was to create an appetite for a broader application and understanding of the approach to the quality control job. Certainly the imagination and interest of those attending has verified the belief that the operating people of the company were ready and receptive to our program. It can be realistically said that quality control now had meaning and direction and is not beyond the scope of influence of the average foreman. Again, the opportunity to convince and educate has been most helpful.

As a means to obtain uniform quality thinking throughout the corporation, semi-annual two-day Quality Control Seminars were held. All quality control managers and chief inspectors participated in these Seminars. The early Seminars were devoted to developing a uniform quality philosophy and policy. This offered an opportunity for an exchange of ideas on common problems. As the meetings progressed, the administrative heads of other functions were invited to outline their programs and problems associated with quality control. Mutual problems were discussed and ultimately resolved as bi-function objectives. Some typical projects that have come out of these discussions are: revision of inspection classifications, vendor evaluation program, integration of quality control with marketing and sales, development of gage committees in each division, development of uniform quality cost accounting procedures, review procedures for tolerance versus process capability, and so forth.

Many other specific topics were presented that would broaden overall knowledge - such topics as the principles of non-destructive testing, new statistical techniques, use of I. B. M. computers and tabulating equipment, legal aspects of product liability and insurance coverage, and such new developments in the gaging field as plastic gages.

One highlight of these Seminars is a report to the quality control organization by the executive officers on the over-all corporation forward plan. This, as well as discussions with other functions, has enabled quality control to do a better job of integrating its plans and programs with these allied functions.

Lately each Seminar has been devoted to a specific area. At a recent Seminar, devoted to the Manufacturing - Quality Control relationship, all Manufacturing Managers participated. They served as members of a panel to discuss this topic and questions prepared and submitted in advance by the quality managers. Out of this panel discussion came a better appreciation of each other's problems and expectations, which has led to improvements in the program.

It is believed that a definite, tangible forward plan should be made for each fiscal year. Every quality control department in A. O. Smith's 21 product divisions is required to submit a forward plan for its quality cost spending. Total quality costs are made up of scrap, repairs or rework, inspection cost, and product failure. These costs are related, ratio-wide, to productive labor. By using this criterion, it is possible to determine the actual percentage points reduction, and the corresponding dollar savings, of the forward plan versus a prior base period. Each quality cost forward plan is reviewed and approved by the division manager and general manager and then sent on to the General Office Quality Control Staff. This Staff then develops an over-all Corporation quality costs forward plan which is submitted to the executive officers of the company. The performance of each division is then reported and evaluated versus the forward plan monthly. A monthly progress report is submitted to the executive officers.

The quality cost forward plan projecting the anticipated reduction is not sufficient by itself. Each plan is supplemented by a divisional

plan to meet its cost objective. This plan spells out the programs and projects that will be undertaken. The divisional objective is also broken down into individual departmental goals. This is not exclusively a quality control department activity; it is a cooperative divisional effort. Such projects as redesigning a product to eliminate chronic quality troubles, revised procedures to reduce inspection manpower, better control procedures to reduce repairs, training of operators to reduce scrap and repairs - these are a few examples of the total divisional effort expended to meet objectives. The quality control department's major contribution is to analyze and isolate the areas where the greatest improvements are possible and to recommend a plan of action to achieve the reduction. Needless to say, these plans and subsequent performances are watched closely by all levels of management.

Through this method of quality planning, a quality improvement and quality cost reduction program reaches from the foreman in the shop to the executive officers of the corporation. One chronic problem in industry has always been communications and follow-up. This problem also plagues quality control. It is paramount in every quality man's mind that communication and follow-up on customer complaints is essential. To expedite the handling of customer complaints and to fix responsibility for corrective action, each division has developed a customer complaint procedure. Beyond this, individual quality committees have been established to review monthly the quality performance on each product. The permanent Product Performance Committee is comprised of:

Quality Manager - Chairman
Plant Superintendent
Sales Manager
Chief Engineer
Representative of the Quality Control Staff

The Quality Manager reviews the items to be discussed, notifies the other parties who are required to attend, and specifies the topic they should be prepared to discuss. The purpose of these monthly Product Performance Meetings is to review all complaints in order to determine if satisfactory corrective action has been accomplished.

If the corrective action is satisfactory and permanent in nature, then the complaint is closed out. If the corrective action is unsatisfactory or temporary in nature, the complaint remains open. On all open complaints, specific assignments are made to conclude the complaint as quickly as possible. No complaint can be closed without the unanimous consent of the committee.

This committee also reviews warranty expenditures and product failures monthly. On consumer products a monthly report is prepared by the Product Service Division summarizing warranty expenditures and product failure by product, by failing part, by cause of failure, and itemizing the frequency of occurrence. Shipping damage is also charted. These data are analyzed by the committee to detect deteriorating trends and chronic quality problems. Frequently, project assignments are made to improve or eliminate the problem in question.

The committee approach has been very helpful in keeping quality needs continually exposed to everyone. Current quality problems and changing quality demands have an impact on the entire organization and as such, manufacturing, engineering, sales and quality control work jointly in evaluating the pulse of the quality life line. Consequently, management decisions are made with a full knowledge of the current quality situation.

The Product Performance Committee just discussed is a management review committee. Other more specific committees may be used. It should be frankly recognized, however, that the committee approach can be overdone and could be very inefficient. For this reason, careful attention should be focused on the basic reasons for establishing a committee:

1. To gain a total view of the problem.
2. To obtain all the technical and administrative talents necessary to analyze the problem.
3. To concentrate attention on a specific chronic problem and follow through toward an objective.

There are, of course, other reasons for creating a committee, but these three are particularly pertinent in regard to quality problems. First, the committee is created because the problem is chronic and can not be solved through normal channels. Second, the problem involves many areas and the thinking of the people affected is a necessity if the ultimate solution is to be practical. Third, the services of many talents and of highly trained people are required so that sufficient consideration is given all aspects and the likelihood of creating new problems because of lack of knowledge is minimized. Fourth, the committee exists to accomplish a specific objective; therefore, as soon as the committee's objective is accomplished, the committee should be dissolved.

Up to this point, this discussion has been concerned only with the quality control viewpoint. Too frequently this may be all that is considered. The viewpoint of management, however, is also important. It must be recognized that quality control's activities in developing plans, in establishing training activities, in building an organization, in achieving administrative action through committees must fulfill the expectations of management.

It is interesting to review some of the viewpoints of A.O. Smith's management and what they expect of managers in the quality field. Here are a few responses of some of the management people.

One unique viewpoint expressed by a general manager indicated that he expected his Quality Manager to protect quality from him. Each executive has a different background and experience. Consequently he will appraise quality in terms of his own, however biased or prejudiced they may be. What this general manager was saying was that he expected his Quality Manager to prevent him from swinging his organization to a quality viewpoint that was out of balance. It is easy to visualize the difference in quality attitude of a manager of a division who was predominantly

a salesman, or an engineer, or a manufacturing man, or an accountant. Quality control people must be prepared to adjust to these individual personalities and protect quality from them.

One of the division managers stated that he thought that a quality manager should be a businessman. He further concluded that quality control, engineering and manufacturing were three businessmen whose success is interdependent upon each other. Quality control must make itself part of a team, not try to go it alone.

Another general manager, asked if he shouldn't give more support to the quality organization in one of his plants, stated that he would be pleased to support this group to the ultimate whenever they proved to him that they were capable of handling the responsibility he wanted to give them. He felt that the quality control organization would abuse the strength he wished to give them.

Frankly, quality control people do not sell top management anything; they call it selling, but in reality they prove themselves. Top management support is directly proportional to what quality control accomplishes toward the objectives of the corporation - the same objectives mentioned earlier: aid in the growth of the corporation by establishing a good quality reputation through satisfying customers; and improving the profits of the corporation through reducing quality costs.

All other items are secondary. It is here that administrative skills determine the degree of our success, and administrative action is the requirement to achieve success.

About four years ago, A. O. Smith recognized that the quality control function should be elevated to a divisional staff level. Consequently, quality manager positions were created which would report to the division manager. This gave quality control an equal voice with manufacturing, engineering, production control, and others on the division manager's staff. This move was made because management recognized the importance and need for good administrators in the vital function of quality control. The challenge facing these managers was the job of integrating quality control into the organization as a team contributor and of getting other functions to support and contribute to the over-all program. The wisdom of this move has proved itself.

At A. O. Smith, quality cost reductions are running into seven figures over the last three years, and it seems safe to say that quality control has as much management support as in any corporation in the country. This quality control program is a corporation program - a team effort, not a department function.

AN ECONOMIC HISTORY OF THE AMERICAN OIL INDUSTRY

Neil P. Hurley, S. J.

EDITOR'S NOTE: In the April issue of the Marquette BUSINESS REVIEW, Part I of this article covered the history of this vital American industry from its beginnings in 1859 through the 1920's. Part II now brings the history up to the present day, and offers some speculation and forecasts regarding the future of one of the industries most intimately related to the modern age, not only of the United States, but of the entire world.

The Industry from 1930 to 1940:

From 1931 to 1935, the period of the world-wide depression, oil production figures in every phase of the industry were frozen at 1929 levels. The economic history of the American oil industry at this time can be summarised as follows: overproduction of crude oil, decline in consumption, excessive manufacture of gasoline, falling off of petroleum exports, and the sluggish movement of inventories. "Flush production" characterized operations in Texas, Oklahoma and California. The large number of "pumpers" naturally depressed prices further, so that in July, 1931, crude dropped to 10 cents a barrel. Things were so bad that the Texas Governor declared martial law in the East Texas area to restrict further production until market conditions were adequately studied. As a result, two factions arose: the independents who wanted unrestricted production, and the large producers who favored controls. The final solution was to fix quotas. However, "hot oil" flowed through the pipes, which were disconnected from control gauges and cut-offs. In the course of time, interstate oil companies were approved by various state legislatures to conserve oil and gas. The National Recovery Act, the Oil Code, the Connally "Hot Oil" Act, and the Interstate Oil Compact co-operated in a sound policy of restricted oil production at the well-head.

Commercial aviation was stirring in its cocoon. The Kelly Act, in force since 1925, authorized the Post Office to contract with private plane operators to carry mail. The airmail business grew during the Thirties; air freight and air express were new ways of conducting business operations and helped nurture the industry in its days of infancy. The aircraft industry experienced a wave of mergers of airline companies in and around 1930. Consequently, President Roosevelt, following Senate investigation, had all government mail contracts cancelled and ordered the Army Air Corps to haul mail. This precipitated a divorce of airlines from airplane manufacturers and led to the subsequent formation of such airline systems as American Airlines, Pan American World Airways, United Air Lines, and Trans-World Airlines. The Civil Aeronautics Act of 1938 gave considerable stability to the commercial airline companies,

*Father Hurley received his Doctor's Degree in Economics from Fordham University and is now at the Jesuitenkolleg in Innsbruck, Austria.

and prepared for the phenomenal growth patterns which the industry would exhibit during and following World War II. Some statistics will show the effects of this new industry on oil sales. In 1940 the aircraft industry and airline companies used 88,074,895 gallons of gasoline, as compared with 27,779,932 gallons in 1931; also, civil aircraft consumed 1,764,289 gallons of lubricants in 1940 as opposed to the 1,083,042 gallons in 1931.

The depression years caused strong oil lobbies to form in Congress for the erection of protective tariffs. In the competitive race among refiners for dealer outlets, offers were made to retailers of liberal rent terms for stations, price concessions on gasoline, and free installation of gas pumps and storage tanks. The policy prevailed of by-passing bulk plants and shipping oil by truck, rail or pipeline directly from refineries to service stations. While some companies still pursued forward vertical integration policies to gain a larger share of the market and to obtain a lower break-even point on crude runs at the refinery, a trend toward disintegration was also noticeable. Every major company had to consider reducing the depth, extent and intensity of operational activity in its pattern of integration. In the mid-Thirties, many large companies leased company-owned and company-operated stations to private operators.

California and Texas led the states in oil production by together producing over one-half of the nation's crude (the lowest percentage being 55 per cent in 1940 and the highest being 63 per cent in 1933). Petrochemicals continued to grow in importance with carbon and carbide expanding from natural gas to refinery gas and creating thereby a whole series of new organic chemicals called the aliphatic series. Realizing the future that was in petrochemicals, Jersey Standard and Shell Oil moved into the Gulf Coast area. As of 1939, the Houston-Beaumont area contained within a 600-mile radius one-half of the world's total supply of oil.

The existence of financial giants in the industry disrupted the peace of mind of many citizens in America. Some 16 companies had over 11 million dollars capitalization, and the size and degree of vertical integration in the industry drew critical fire from Congress. The Temporary National Economic Committee hearings disclosed that 20 integrated companies owned or controlled 57.4 per cent of crude oil gathering pipeline mileage, 89 per cent of the crude oil trunk mileage, and 96.1 per cent of the gasoline pipeline mileage. This intense integration of transportation facilities was born of the high initial capital investments which few companies could bear alone, as well as the wish to insure adequate throughput for the large refineries. The industry was indeed experiencing hard times.

Oil imports fell off during the decade, with Venezuela proving to be the largest source of foreign supply. During this time, exports increased but not at any impressive rate. Many factors explain the reversal of America's traditional position; the proration policies of the 1930's, the tariff on oil imports, and abundance of oil resources in the Near East, Canada, and Venezuela served to make America a net exporter of oil and not a net importer as she had been earlier. Refining operations were encouraged abroad and this created serious inroads on the exportation of petroleum products refined domestically.

Meanwhile, the rising compression ratio of auto engines made it necessary to develop a fuel with higher octane ratings or lower knock tendencies. The average octane rating in 1938 was 71, as compared to 60 in 1931. Future chemical research would improve on this.

Labor-management relations were less volatile than in some other industries. For example, the Jersey Standard had an excellent record of labor harmony which went back to World War I. In 1937 there were some 789,540 employees in the industry. Average weekly earnings for those in the phase of crude oil production was \$33.41 as of December, 1938, while the average in the refining stage was \$35.30. This compared very favorably with the over-all average for American manufacturing: \$24.24. The wage structure must be considered against the background of falling prices (the average retail price of gasoline in 1923 was 21.06¢ as compared with 14.07¢ in 1938) and increased taxes (federal and state sales tax went from 0.91¢ in 1923 to 5.44¢ per gallon in 1938).

During the 1930-1940 decade, the debt structure of the major oil companies remained low, while reinvestment of earnings and stock issues were the prime source for new capital. Some idea of the attractiveness of oil stocks among the major companies can be gained from the fact that the average annual return in the industry for the ten-year period ending in 1937 was 5.2 per cent on invested capital.

Geophysics aided oil prospecting considerably. Using electrodes placed at strategic intervals in the earth, prospectors could determine the electrical resistance of the intervening rock layers and thus conclude to subsurface geological contours. With the magnetometer, as large as a good-sized camera, it was possible to measure magnetic attraction intensities with minute accuracy. Thus were deep-lying oil horizons revealed. Besides, torsion balances detected flat domes and buried granite ridges; gravimeters measure the vertical pull of gravity by means of sensitive spring scales; thermal, electric, and radioactive and neutron logging practices collated important data for prospecting predictions, and soil analysis and contour maps plotted the extreme limits of oil bearing formations. As the reader can see, the industry was more and more joining hands with science and technical research.

Using improved cable tools and rotary rigs, record depths of 15,000 feet were reached. Special fishing tools were devised to recover drilling tools, casing and cable which became lost. Efforts to control oil flow more perfectly led to the invention of the "Christmas tree", a control head made up of branching valves screwed securely to the top of the casing. This not only guided the oil flow, but separated oil from gas on the way. Together with efforts to avoid drilling lines which were other than true, angular drilling was purposely undertaken. "Directional drilling", as this method came to be called, was applied to put burning wells under control and to tap reservoir beds lying offshore under several hundred feet of ocean. This made offshore drilling profitable on the continental shelves near the Texas, Louisiana, and California coasts. With a so-called "whipstock" or "knuckle joint", holes of 62 angles could be drilled from the vertical. This first successful attempt at "directional drilling" took place in 1938 in the Gulf of Mexico.

With advances in drilling methods, however, came higher costs. The figure for a well could run from \$100,000 to \$1,000,000, according to depth, location, and geological conditions. Even shallow marine operations, such as off the coast of Louisiana, were expensive. Oil mining was profitable when it was discovered that Louisiana shale and sandstone yielded a good lubricating stock. The method employed was to open the raw surface of the horizon to permit the petroleum to seep to the bottom of the shaft from which it was pumped.

Pipelines cut into rail freight severely in this decade. Whereas rail freight for oil in 1939 came to 8 mills per ton-mile, the cost for pipeline transportation was roughly 4 mills per ton-mile. Pipelines were usually of small diameter, and by 1940 their aggregate length totalled 115,000 miles. There were 58 companies in 1937 which were engaged in interstate pipeline trade. Because of the arterial network of pipelines and lowered transport costs, oil enterprisers were freer to locate refineries and distribution terminals according to other strategic economic factors. Tanker transport, however, still played a major role in oil economics; the availability of cheap tanker service was instrumental in building the refinery concentration in the Gulf Coast, Southern California and Atlantic Coast regions.

Refining technique witnessed a revolution in catalytic cracking. By 1938, this method could produce gasoline simply by heating either crude or gas-oil distillates and passing the vapor through a catalyst at relatively low pressure and heat levels. Processes such as the Houdry Process aimed at producing fuels with greater anti-knock qualities, higher octane ratings, and more lead susceptibility. The Houdry Process succeeded in obtaining an 82 per cent gasoline yield per barrel of crude as contrasted with 55 per cent, the best figure in 1930. The cracking process not only permitted the breaking down of large molecules into smaller ones, but it could also combine smaller molecules into larger ones, a process called "polymerization." Both effects were valuable for obtaining fuels and gasolines of better quality.

The Thirties saw experimentation with hydrogenation, also. Here, hydrocarbons were built up from carbon compounds by joining them to free hydrogen atoms under ideal conditions. This technique offered unlimited possibilities for producing the five qualities that experts deemed essential for the perfect petroleum product: a high viscosity index, a low pouring point, resistance to oxidation, negligible carbon formation, and long life.

The economies of the industry during the depression years of the Thirties militated against building many new refineries or expanding old ones. Different refinery operations were consolidated, however, to secure better heat exchange, reductions in labor costs, and savings in operating expenses. It is a known fact among oil experts that automation had long been established in the industry and that the publicity afforded "feed-back" controls and electronic systems in the Fifties was nothing new for oil. As early as 1935, uniform controls of flow, pressures, and heat levels were standard procedure in major oil operating units. In the Forties, the "off-on" temperature control of the dephlegmator tower permitted a uniform separation of light products and heavy materials that

had been re-cycled back to the pile still, while readings were made from a central control house.

What were the marketing innovations in the 1930's? For one thing, motor oil was merchandized in cans. Earlier dealers purchased oil in bulk, poured it into highboys, pumped a few quarts into a measuring can and then poured it into the customer's car. Hippodrome selling techniques became common among the larger companies which sought to fix their brand-names in the public's mind through parades, exhibitions, floats, company movies, and contests with expensive prizes. In addition to the growing market for aviation and motor gas, some 450,000 homes in America required oil for heating purposes in the mid-Thirties. Service stations dotted highways and avenues; the U. S. Bureau of Census reported that in 1935 there were 197,568 stations in the nation. But by 1938 motor vehicle registration reached almost 30 million, a twelve-fold increase over the 1915 figure.

Although the depression constituted a strong retarding influence, the industry struggled for maturity. Forward and backward integration went on to insure survival in a fiercely competitive environment, especially where the increasing supply of crude created inexorable pressures for new retail outlets. Dealer outlets were sought, cross licensing continued unabated for firms with research programs, public relations programs spread, free information exchanges and trade associations came into being, and professional societies and industry publications multiplied. Proration was universally practiced and the industry became aware of future needs and the wisdom of conserving current reserves. It was during the Thirties that the petroleum industry assumed the hour-glass pattern which has marked it. Drawing materials from disparate sources, the industry funnels these into various channels (rail, pipeline and tanker outlets) leading to a few major refining areas concentrated in and about high population areas. From these refineries the final products are deployed outward by means of product pipelines, trucks, ships, and rail to retail outlets.

The Industry from 1940 to 1950:

Economic development and technology invariably undergo an accelerated pattern of growth during periods of mobilization. Such was the case with the oil industry in the period from 1940 to 1950. The blitzkrieg pattern used by the German High Command was based on the combination of mobility and striking power provided by motor-propelled vehicles using gasoline, diesel fuel, oils, greases, rubber, explosives, and other derivative products of oil. The importance of petroleum facilities in Germany's war economy lay in the fact that it was closely linked with synthetic rubber and chemical operations. The U. S. Strategic Bombing Survey said, "Measured in terms of results achieved, the two most important objectives were the German synthetic oil industry and the German transportation system." The continued air offensives by the Allied Air Force against oil and nitrogen plants in the summer of 1944 cut the production of aviation gasoline and oil products as much as 90 per cent within six months.

As oil proved to be an Achilles' heel in Germany's war effort, so the increased efforts in research and development in the American oil industry constituted the backbone of the mobilization program of the Allies. Of every two tons of exports to our allies and troops, more than one ton consisted of petroleum in some shape or form. Oil was supposed to have constituted 65 per cent of all the tonnage shipped overseas in World War II.

With the loss of the Malay peninsula and the Netherlands East Indies, 95 per cent of the United States' crude rubber supplies were cut off. This prompted a government investment of 700 million dollars to construct 44 synthetic plants, which would be operated by private companies. Before long these plants had a combined yearly production of one million tons of synthetic rubber. The hyper-concentration of synthetic rubber production in Texas indicates how much the emergency rubber program was pyramided on petroleum production in World War II.

In addition, the petroleum industry furnished the government with immense supplies of 100-octane gas, auto gas, diesel fuels, lubricating alcohols and innumerable specialty products. Oil powered the nation's transportation and farm equipment, as well as its industrial machinery, and thus released valuable manpower for other essential tasks. In the period from 1940 to 1945 Texas, Oklahoma, Louisiana, and Kansas supplied 60 per cent of America's crude, showing how important the Southwest was to the national war effort. The industry increased its annual output from 1.4 billion barrels in 1941 to 1.7 billion in 1945. The highwater mark was reached in August, 1945, with nearly 5 million barrels being produced daily. By the end of 1945, however, the reconversion plateau of 4.5 million was reached. It was the Petroleum Administration for War, created on December 2, 1942, by executive order, that was responsible for the sharp increase in oil production.

Texas and California were the greatest producers in this decade. Despite "flush production", however, in the San Joaquin Valley, the Los Angeles Basin, and the coastal area between Ventura and Santa Maria, California, suffered from geographical isolation. The high cost of transport for oil products restricted California's marketing opportunities to the three coastal states, Arizona and Nevada, all areas which were experiencing economic growth.

The chief direction which progress took in the Forties was the improved quality of gasoline for auto and aviation uses. The aim of petroleum chemists and researchers has always been to extract more and more gasoline from every barrel of crude oil and to produce a 100-octane gas. Thermal cracking, thermal reforming, the use of tetraethyl lead and catalytic cracking were all steps along this road. Companies diverted part of their inflationary profits during this time to technology and applied research.

The Truman Investigating Committee found fault, in 1942, with the patent-licensing agreements which certain U. S. oil companies had with foreign companies. Jersey Standard had offered I. G. Farbenindustrie control of new chemical developments not closely allied to Jersey's operations, if in turn I. G. Farben would give Jersey Standard control outside

of Germany of some of its chemical developments. Thurman Arnold and the Anti-Trust Division of the Department of Justice viewed this situation as one of collusion with the enemy. To avoid litigation and bad publicity, Jersey signed a consent decree in 1942 and entered a plea of nolo contendere. As a result, Jersey Standard had to revoke its contracts and to grant royalty-free licenses to other firms for the patents which the contracts covered as long as the emergency lasted. This contretemps produced expose articles and sensational literature. The large companies consequently realized the need for programs of public education and public relations.

Anti-trust suits are more common in the oil industry than in other industries because vertically integrated companies dominate the industry, thus inviting public criticism and government intervention. By 1950 at least 87 of the operating refining companies in the United States, or 48.6 per cent of the total number in the entire industry, had some type of integrated structure, either owning, managing or controlling more than one of the major phases in the industry.

All the while, however, private oil interests, with the strong diplomatic support of the national government, undertook large scale exploratory programs to uncover oil reserves on other continents. The Second World War intensified interest in the Caribbean and Middle East areas, inasmuch as these regions were relatively inaccessible to the Axis powers. Large refineries were set up in Venezuela, Mexico, Ecuador, on Bahrein Island, in Saudi Arabia, and Kuwait in the Middle East. In addition, pipelines were laid from Iraq to the Mediterranean with American technical knowledge and capital. Also, lines were installed in Colombia and Venezuela. As of 1943, direct American investments in foreign petroleum operations amounted to 1.4 billion dollars, almost 20 per cent of the industry's total investment.

As oil-conscious world worried about petroleum shortages at the war's end. The O'Mahoney Senate Committee on Investigating Petroleum Resources held exhaustive hearings in 1945 on the problem; it was thought that removal of price controls would stimulate exploration. Fuel oil was eventually supplied to meet the shortage demands during the winter of 1947-1948, and oil stockpiling was suggested as a security measure in the event of another emergency.

A ticklish problem at the time was the tideland oil reserves. The continental shelf off the United States and Alaska was estimated to contain 100 billion barrels of oil. Did this valuable land belong to the national government or to the states? After much controversy, the solution was to vest ownership in the states out to three miles in the case of some states and three leagues in the case of others.

Whereas the average depth of wells in the Thirties was 5,000 to 6,000 feet, improvements in rotary drilling equipment in the Forties raised this figure. In 1949, a well was drilled in Wyoming which was over 20,000 feet. Drill cuttings were analyzed, paleontology and microfossil study were applied, aerogrammetry became more popular. Naturally, the ratio of pumpers to dry wells increased as a result of these

new scientific methods of prospecting. In 1949 the total number of wells drilled was 37,633, twice the number in 1934. Also, wasteful practices were curtailed by conservation laws and maximum recovery methods.

Refineries ran at full productivity in 1945, producing a record high of 774,460,000 barrels of gasoline, more than 50 million barrels over the previous year's total. The 7 million more cars that existed in 1947 as compared to 1944 swelled the industry's sales volume. After the war, the industry voted a \$4 billion capital expenditure for the fiscal year 1947-1948. Of this, 22.1 per cent was earmarked for refinery improvements. New refinery construction in the Forties incorporated military and civil disaster defenses. The concentration of refineries and petroleum processing plants in coastal areas such as Southern California, the Beaumont area of Texas, and the Philadelphia - New York region all gave a high degree of vulnerability from sea and air to these industrial complexes. Moreover, the 1947 explosion at the Monsanto plant in Texas City, Texas, sharpened the awareness of oil executives of the value of mutual aid systems and plant emergency plans. The development of nuclear weapons and the indispensability of oil in times of war made the industry defense-conscious.

The refineries were making some 5,000 by-products at this time, as a result of the improved catalytic cracking methods devised. Thus, for example, ordinary naphthas were converted into a high quality aviation base stock which could be blended with synthetics to make 100-octane gas. By this means, 40 per cent iso-octane and 60 per cent base stock could be employed, as contrasted with the former process which required 65 per cent iso-octane, 35 per cent base blending stock, and tetraethyl lead. Companies such as the Standard Oil Development Company initiated a number of projects: alkylation, hydrogenation, hydrocarbon synthesis, isomerization, polymerization, toluene production, Butyl rubber, Buna rubber, butadiene, lubricating oil additives, and industrial lubricants.

In the field of petroleum automation, pneumatic controls, requiring much plumbing and high installation costs, gave way more and more to electronic controls which cost 50 per cent less to install.

Transportation patterns were disrupted due to the threat of German U-boats on coastal shipping. In February, 1942, a dozen tankers were sunk; another dozen followed in March, then still another dozen in April, and 14 in May; Nor should one overlook such other complications as hurricanes, delays in completing the Little Big Inch pipeline, blizzards which tied up rail and vehicle transportation, refinery breakdowns, and power troubles. Naturally, petroleum inventories in the East declined noticeably.

Remedies included round-the-clock use of trucks, more efficient routing of deliveries, and zoning of demand areas to eliminate back and cross hauls of oil trucks. Railway tank cars, already obsolete before the war for long hauls, were pressed into service and saved the day for private companies and the government. The completion on August 14, 1942, of the Big Inch pipeline was eventful, for it constituted the largest diameter line in the world. The Little Big Inch pipeline was constructed afterward as the world's largest line. All in all, 35 major pipeline pro-

jects were undertaken at a total cost of \$333,658,000, of which some \$154,206,000 came from the government. The pipeline activity of the war years added more than 11,000 miles of trunk and gathering lines, plus the relaying of more than 3,000 miles of existing pipelines in new locations and the reversal of 3,000 miles of other lines.

Marketing conditions were radically changed by the war. Historically accustomed to efforts for expanding wholesale and retail outlets, the marketing divisions of the large oil firms found it difficult to adjust to the voluntary conservation of gasoline, the limitation of deliveries to service stations, card rationing with preferred customers, and the role of rubber as the limiting factor on gasoline usage. A national petroleum requirements committee determined oil distribution by geographic areas and by uses. Three objectives were sought: to divide existing supplies among consumers in proportion to their needs; to provide special priorities for the most essential uses; and to give every distributor the same opportunity.

Unlike some industries, oil companies could not say apologetically, "Oil has gone to war." They had to meet many essential civilian demands. The nation's 35 million passenger cars, trucks and buses had to be given at least enough to insure essential transportation. Following the war, Americans understandably wanted to indulge their restricted wartime desires. Homes were built, cars rolled off the assembly lines again, and industry's wheels started to move in the direction of consumer goods. This activity stimulated the oil industry. By 1948, there were 29,451 bulk plants and terminals, and 188,253 service stations (or one-tenth of all retail establishments in the nation). In 1949, petroleum exports hit an all-time high, but high government taxes plus the removal of OPA price ceilings sent crude oil prices skyward. The European Recovery Plan seemed to come at an unpropitious time, during the oil shortage period of 1947 to 1948.

The importance of oil to the nation's economy at this time can be seen from the fact that as of 1949, 50 per cent of the United States' total energy supplies came from oil and natural gas. With only one-third of the world's proved crude oil reserves, America in 1950 was consuming close to two-thirds of the free world's total annual production.

The Industry from 1950 to 1959:

The latter half of the Twentieth Century began with the stress on developing better aviation fuels and furthering proration and conservation measures. The industry had large demands to meet: motor vehicle registration in 1954 was well over 48 million and air-line traffic for passengers exceeded the 20 billion mile mark. The major national security problem was liquid fuels, since civilization consumed in a flash of geologic time the vast stores of fossil fuels which nature had stockpiled in the ground for over 500 million years. At the turn of the century, coal was the major fossil fuel, supplying nine-tenths of the nation's total energy, while petroleum and natural gas provided less than one-tenth. By 1950, on the other hand, coal supplied only two-fifths, whereas gas and oil provided well over half.

Since oil was such an indispensable item in the nation's energy mix, oil producers invested 3 billion dollars in 1954 to further the search for new fields. At the time, there were some 30 states with commercial production. Newer depths were sought by modernized drilling methods, so that depths of 18,000 feet became quite common. With over 57,000 wells drilled in 1954 (some 18 per cent were exploratory wells), 27 per cent were dry holes and the rest producers. Activity was especially feverish in the Williston Basin in the North and South Dakota and eastern Montana regions.

The Fifties saw the resolution of the tidelands problem. In 1953, the states were awarded ownership of the continental shelves. Marine drilling operations in 1954 took place in water over 100 feet deep. Today 300 feet drilling presents no problem. Revival in oil exploration took place in the Appalachian Basin and in Clinton, Elk, and Cameron Counties of Pennsylvania. Deeper drilling and secondary recovery methods were tried at former "flush production" sites. All this happened along with the opening of new oil sectors in the Rocky Mountain area, a region which boasts many sedimentary basins.

As of 1950, the industry could claim a half century of amazing progress. It had boosted gasoline output from 11 per cent of crude to almost 50 per cent, and it had improved gasoline's quality from 50-octane to 100-octane automobile gasolines. As long as the piston engine, in contrast to the auto gas turbine engine, is the predominant method for powering motor vehicles, refining problems will persist. The petroleum industry, with its highly financed research programs, had in the short period from 1940 to 1955 placed on the market some 2,000 new petro-chemical products and given birth to three significant industries: the synthetic rubber industry, the plastic industry, and the synthetic fiber industry. The industry's refining methods have reached the point where, as of 1959, gasoline costs very little more than it did under the cruder refining methods of 1925, yet does one and one-half times as much work per gallon.

The modern trend in the industry is to spend millions on research to tailor each product to some special-purpose use. Today, a barrel of crude may be readily converted into various chemicals, specialty gasolines, kerosene, Diesel oil, or light fuel oil, with hardly any residue except for coke. Since gasoline has increased steadily in demand since World War II, and since it brings the highest price among oil products, the refiner has understandably concentrated on turning heavier hydrocarbons into gasolines. Meanwhile, the railroads are converting from steam to Diesel power and are demanding increasing supplies of Diesel oil. Fuel oil, on the other hand, is the least valuable of the petroleum products and is being relegated to a subordinate place. Military requirements for jet fuel are increasing in the present period. The industry is fully aware of the expanded Soviet program to take the primacy in world production. Petroleum is, as a result, a strategic factor in the procurement and requirements plans of government and defense agencies.

Atoms were put to work in the Fifties for the oil industry, by using atom tracers to determine the boundary between two different types of petroleum product and to enable diversion of flow when a particular grade of oil began to change into another. In addition, atoms are being used

to measure liquid levels in tanks, to meter liquids, to trace leaks in pipelines, to determine wear in engine parts, and to study petrochemical reactions.

A natural question that has arisen in the decade of the Fifties is, would oil sales be substantially affected by increased use of atomic energy? Most oil is used in transportation and space heating, fields where atomic plants may not compete so easily because of the difficulty involved in preventing dangerous radiation in the event of accidents, the immense weight of shielding required to contain radiation even in a small reactor, and the very high costs of nuclear reactors.

Besides, petrochemicals are playing too large a role in the national economy to predict any downward swing in petroleum production. It is estimated that by 1965 petrochemicals will supply 50 per cent of our chemical needs. The petrochemical industry, highly concentrated in the Gulf Coast area, is a very autocatalytic industry, manufacturing synthetic products that have widespread uses in any number of specialized industries. Whereas certain industries, such as the movie industry and the automotive industry, rely heavily on programs of "planned obsolescence", the petrochemical industry seeks to create new needs rather than to use psychological motivation to create dissatisfaction. Consequently, the industry has a healthy posture with prospects for growth, as long as it can reform molecules of hydrocarbons into elements as practicable and as cheap, or cheaper than those which nature produces.

Integration will always characterize the industry. The question arises, however, how much integration will be allowed by a Justice Department that is wary of concentrated economic power. As we have seen, the tendencies are to unite refining production and refining stages in a forward thrust when an operator wants to free himself from dependence upon existing consumers; on the other hand, backward integration is very tempting when a refiner wishes to control oil sources to insure a steady supply of raw materials. Market considerations, rather than technical efficiency, have always prompted backward and forward vertical integration in the industry. The industry is interlocked with other key industries so that vacillations in steel and autos affect oil and vice-versa.

The significance of the industry can be concluded from the fact that, as of 1952, 1.9 million people were employed in its basic operations and \$33 billion of assets were at its disposal. To keep pace with the requirements of the Free World, the industry made capital expenditures of almost \$56 billion from 1946-1955, of which 68 per cent was invested domestically. Capital spending was broken down as follows in 1954:

	<u>Percent of Total</u>	<u>Dollar Amount</u>
Drilling and Production	50	\$2, 281, 500, 000
Refining	28	1, 277, 640, 000
Transportation	7	319, 410, 000
Marketing	12	547, 560, 000
Other	3	136, 890, 000

Many of the new expenditures were for technological improvements in the field of automatic control and closed loop design. Even pipeline flow was remotely controlled. Automation favors the erection of larger refineries, since it is as easy to control automatically a catalytic cracker producing 20,000 barrels per day as one producing 5,000 barrels.

Characteristic of the oil industry's partnership with the rubber industry was the Rubber Producing Facilities Disposal Act of 1953, which enabled the government to sell 27 plants with 500,000 long tons of general-purpose synthetic rubber capacity and 43,000 tons of butyl capacity to private enterprise. The oil-rubber partnership begun in World War II by the federal government continued in the Fifties under private auspices. Texas-U. S. Rubber and Goodrich-Gulf together own the world's largest complex of synthetic rubber plants at Port Neches, Texas.

Future Prospects of the Oil Industry:

As we have seen, the oil industry's progress in this century has been closely tied to technological developments, not only within the boundaries of its own operations, but in other fields such as autos, aviation, highway construction, rubber and plastic industries. Now that we are in the jet-turbine age, oil refineries will need elaborate and expensive equipment to produce a steadily increasing quality of gasoline. If gas turbine engines should prove to be successful as a method for powering vehicles, this trend might be reversed, inasmuch as gas turbines consume vast quantities of fuel while idling, but very little while running. Certainly "high octane" requirements would become obsolete in a gas turbine age.

One thing is certain: petroleum will not be a minor actor in the industrial drama of the world, and especially of the United States. Oil is indispensable, whether as fuel for reciprocating or jet propulsion type engines, whether as Diesel fuel for submarines or bunker oil for ships, whether as high octane gasoline for conventional aircraft, PT boats and tanks, whether for kerosene or special lubricants. Wheels have to be set in motion and oiled whether they are found in heavy machines or in wristwatches, whether under half-tracks or limousines. The major units, be they mobile or stationary, of our Army, Navy, Air Force and Merchant Marine, need large quantities of oil - recoil oils for field artillery, anti-aircraft guns, and firearms; petroleum "jellies" for fire bombs; greases, oils, and waxes to protect valuable equipment against oxidation; petroleum compounds for medicinal purposes. Add to this list the innumerable demands, both large and small, of industry and one has some idea of the significance of August 20, 1959, the day when Drake and Smith witnessed oil gush forth from the nation's first successfully drilled well near Titusville, Pennsylvania.

WHAT'S AHEAD IN SALES TRAINING

C. Brooks Smeeton *

Now, as one fabulous decade of science and technology is closing and another is approaching, it seems fitting to ask the man in charge of sales if he realizes that time isn't the same article it was twenty years ago just because it is still measured by the calendar and the clock. By his own admission, training his salesmen is still one of his biggest problems and from where we sit it looks as though it is going to continue to be a problem as long as he succumbs to patent medicine training methods or to hiring ready-made salesmen. "It's a good thing salesmen are gregarious and good natured," says Ralph G. Jacobsen, Jr., Manager of Sales Training Marketing Division, Kimberly-Clark Corporation. "If they weren't," he continues, "they'd be the most depressed, frustrated and skeptical group in business life. Articles written about them always stress what they should be, what they should do, what they should know, and what's wrong with them." No truer words were ever uttered, I thought, as I was recently solicited several times via direct mail "to come and follow a powerhouse of energy and his rapid-fire series of moving diagrams showing how to succeed and sell on purpose . . . and win financial security, prestige and peace of mind. Learn how to dominate by submission. Learn how to outwit competition. Learn how to beat the extrovert at selling. Learn how to lower the threshold of resistance, how to open faster, how to dilute and neutralize objections, how to close sooner and more skillfully. You'll come away with an understanding of sales and human beings which will double your energy, skills and sales."

Thus today, in a dynamic decade when the salesman's function should be creatively adapted to change, sales meetings too frequently feature little more than vague generalities, and old-style "hard-sell oratory."

There are not nearly enough competent ready-made salesmen to meet the demand. As a matter of fact, there never have been enough. And when one considers the high turnover in salesmen, he is convinced that now is the time for arousing - or reviving - interest in "good form" in selling.

To hire a top-flight producing salesman away from a competitor rarely turns out as well as expected. A sincere man may find it hard to transfer his loyalty or to adapt himself easily to a new company and managerial environment. In any event, the "tailoring" and "selling" of training is essential to full acceptance. In spite of the growing recog-

*Mr. Smeeton is Professor of Marketing, Marquette University.

nition of the fact that teaching and selling require many of the same qualities, there are still many sales executives and so-called training experts who are inclined to brand anything that even suggests the idea of teaching as "theoretical." These individuals pride themselves on being "practical" people.

Instead of instilling "good form" in salesmen, many training activities are confined to pious pronouncements of "do's" and "don'ts" designed to reduce the expectancy of wasting time and neglecting prospects or to getting reports and route sheets in on time. Training salesmen is a form of coaching. As such it seeks to win approval of the accepted parts of "good form." If the training of salesmen is to be intentional and sound it obviously must have a purpose. But the purpose should be broad; in other words, it should not be limited only to increasing a salesman's ability to sell. To perform his duties effectively, efficiently and uniformly calls for a combination of many things that go to make up his attitude, as well as his ability to sell . . . all of which are matters for training or direction.

The principal idea of training salesmen is to instill a respect for "good form." Training, however, loses favor with salesmen when it consists of grooving the selling process or of routing every sale through a series of successive steps - "how to dominate by submission," "how to outwit competition," "how to open a sale faster." To fit a ready-made sales training program to a highly individualized situation completely obscures the idea of sales training. No one can conceive a sales training program for your business but you and your associates. For any one to give you a ready-made set of answers to your sales training problems would be presumptuous, because your business is different from any other. Being different, it requires your own special knowledge and experience to make the decisions which guide and determine its sales future in terms of volume at a profit.

There are, of course, procedures which can be worked out to make sure that judgment of sales management is applied to the problems of training salesmen with as little loss of time and effort as possible. In the opinion of a leading sales training authority, "assuming that a favorable 'climate' for training and development has been provided: (1) by the active approval and participation of top management; (2) by the careful selection of the man to be trained as salesman; and (3) by a compensation plan that is fair and has a bearing on the salesman's acceptance of guidance, 'good form' in selling is built on a solid foundation of patient fact finding, planning, coaching, practice, and incentive - with extra - heavy accent on incentive and motivation."

A starting point for a sales training diagnosis is a breakdown of an individual company's marketing policies and practices for the purpose of examining each symptom in the light of prescribing remedies of known potency. The accuracy of this diagnosis depends on the skill and thoroughness in searching out and evaluating the basic elements of a sales training problem. For instance, in making an analysis of the salesman's job and determining the subject matter for training, members of the National Society for Sales Training Executives suggest some questions:

What part is our product intended to play in the lives of our customers? How can we best impart this information to new customers? What are the makings of a productive career as a salesman for this business? What do we expect training to do for our salesmen? How well is our present training program functioning? What can be done to improve it? If we wanted to increase the effectiveness of one of our salesmen 10 per cent, what would we do? What kind of training is needed to put new recruits on a profitable basis most quickly and most surely? Are our employment methods securing the sort of men with whom the best sales training plan we can devise will have the best chance to be fully effective?

What are your answers to these questions? Break down each of your answers; challenge them and study them in the light of both past experience and the fabulous '60's. The "net" of such an adventure in fact finding will bring to light some fine material for the training of your salesmen. In any event, an analysis of the job you expect your salesmen to do cannot fail to increase your consciousness of responsibility, and this goes double for planning for "The Markets of the Sixties" which *Fortune* (January, 1959) states "can scarcely fail to produce more scientific surprises than the Fifties" and "for the profound changes that are taking place in American society, the resulting changes in American taste, and the implications for sales and marketing strategy."



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